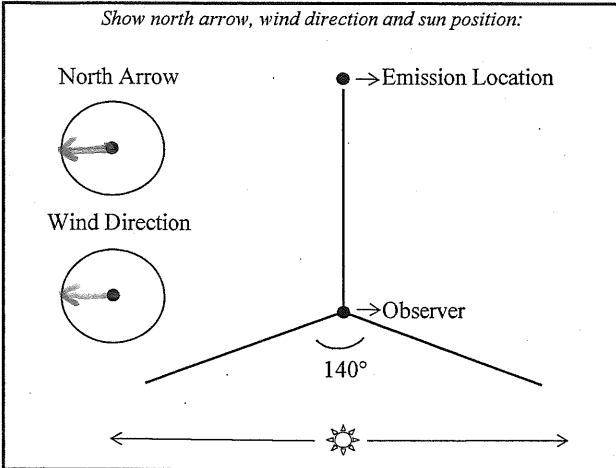


# METHOD 9 VISIBLE EMISSION OBSERVATION FORM

Date: 7/13/2015  
 Observer: E. Chatfield  
 Affiliation: US EPA

Source name: IPL Petersburg  
 Source address: 6925 N. State Road 57  
Petersburg, TN 47567  
 Facility type: Coal-Fired Power Plant



Emission location (stack, roof, etc.): Stack Estimated emission location height: 615 feet  
 Direction from emission location: West Estimated distance to emission location: 1.62 miles (8,554 feet)

Plume color: brown/blue  
 Background: blue sky, few clouds  
 Background color: sky

Sky color: blue  
 Cloud color: white

Estimated wind speed: 10.4 mph  
 Approximate wind direction: S to SW

Temperature: 91.2 °F

Humidity: 52%

Additional Comments  
 (photos/video taken, etc.):  
photos taken  
clear sky

40 C.F.R. Part 60, Appendix A, Reference Method 9

2.3 Observations. "Opacity observations shall be made at the point of greatest opacity in that portion of the plume where condensed water vapor is not present."

2.3.1 Attached Steam Plumes. "When condensed water vapor is present within the plume as it emerges from the emission outlet, opacity observations shall be made beyond the point in the plume at which condensed water vapor is no longer visible. The observer shall record the approximate distance from the emission outlet to the point in the plume at which the observations are made."

2.3.2 Detached Steam Plume. "When water vapor in the plume condenses and becomes visible at a distinct distance from the emission outlet, the opacity of emissions should be evaluated at the emission outlet prior to the condensation of water vapor and the formation of the steam plume."

"On an overcast day when no shadows are observed and the lighting is diffuse or flat, this rule might not be as important from a scientific standpoint as on a bright, sunny day. Observers might have trouble defending their positions in court if they disregard the rule. The best practice for an observer is to always have the sun at his or her back, even if it is not visible and no shadows are cast." <http://www.epa.gov/ttn/emc/methods/VECourse.pdf>

Time	Minute	Seconds				Steam Plume?		Comments
		0	15	30	45	Attached	Detached	
<del>5:00</del>	1	50	45	55	40			
5:00	2	40	<del>40</del> 55	50	55			
	3	55	45	50	55			
	4	45	40	45	40			
	5	45	35	35	40			
	6	40	35	45	40			
	7	35	40	35	40			
	8	40	35	40	55			
	9	65	55	50	50			
	10	45	55	50	55			
	11	40	40	35	40			
	12	35	30	40	40			
	13	35	40	40	35			
	14	45	40	50	65			
	15	50	50	45	40			
	16	45	50	40	50			
	17	40	50	45	45			
	18	40	50	50	45			
	19	60	55	40	40			
	20	50	60	60	50			
	21	45	40	40	50			
	22	40	50	50	50			
	23	45	45	45	45			
	24	50	60	60	60			
	25	55	50	50	50			
	26	45	60	55	45			
	27	65	70	65	50			
	28	50	50	55	45			
5:30	29	35	50	50	50			
6:30	30	50	40	45	40			

(Continued on other side →)

Signature: E. Chatfield  
 Date last certified: Feb 4, 2015

7/13/15

Weather Underground.com  
Petersburg, IN 7/13/15

Time (EDT)	Temp.	Heat Index	Dew Point	Humidity	Pressure	Visibility	Wind Dir	Wind Speed	Gust Speed	Precip	Events	Conditions
8:35 AM	80.1 °F	84.4 °F	73.2 °F	80%	29.84 in	10.0 mi	SW	6.9 mph	-	0.01 in		Clear
8:55 AM	81.5 °F	86.3 °F	72.7 °F	74%	29.84 in	10.0 mi	WSW	8.1 mph	-	0.01 in		Clear
9:15 AM	82.4 °F	87.9 °F	72.9 °F	73%	29.84 in	10.0 mi	WSW	6.9 mph	-	N/A		Clear
9:35 AM	82.9 °F	88.8 °F	73.0 °F	72%	29.84 in	10.0 mi	WSW	10.4 mph	-	N/A		Clear
9:55 AM	83.7 °F	89.7 °F	73.0 °F	70%	29.84 in	10.0 mi	WSW	11.5 mph	-	N/A		Clear
10:15 AM	84.6 °F	91.7 °F	73.8 °F	70%	29.84 in	10.0 mi	WSW	9.2 mph	-	N/A		Clear
10:35 AM	85.3 °F	92.6 °F	73.8 °F	68%	29.83 in	10.0 mi	WSW	6.9 mph	-	N/A		Clear
10:55 AM	85.8 °F	93.4 °F	73.6 °F	67%	29.83 in	10.0 mi	SW	6.9 mph	-	N/A		Clear
11:15 AM	86.2 °F	93.8 °F	73.8 °F	66%	29.84 in	10.0 mi	WSW	8.1 mph	-	N/A		Clear
11:35 AM	86.2 °F	93.8 °F	73.6 °F	66%	29.82 in	10.0 mi	WSW	4.6 mph	-	N/A		Clear
11:55 AM	87.1 °F	94.5 °F	73.2 °F	63%	29.83 in	10.0 mi	West	4.6 mph	-	N/A		Clear
12:15 PM	87.3 °F	96.3 °F	74.8 °F	66%	29.84 in	10.0 mi	WSW	3.5 mph	-	N/A		Scattered Clouds
12:35 PM	87.8 °F	96.6 °F	74.1 °F	64%	29.83 in	10.0 mi	SW	6.9 mph	-	N/A		Scattered Clouds
12:55 PM	87.4 °F	94.4 °F	72.7 °F	61%	29.83 in	10.0 mi	WSW	5.8 mph	-	N/A		Clear
1:15 PM	88.3 °F	96.4 °F	73.2 °F	61%	29.83 in	10.0 mi	WSW	6.9 mph	-	N/A		Clear
1:35 PM	88.9 °F	97.1 °F	73.4 °F	60%	29.82 in	10.0 mi	South	5.8 mph	-	N/A		Clear
1:55 PM	89.4 °F	98.3 °F	74.1 °F	60%	29.81 in	10.0 mi	South	6.9 mph	-	N/A		Clear
2:15 PM	89.2 °F	97.4 °F	73.4 °F	59%	29.80 in	10.0 mi	South	5.8 mph	-	N/A		Scattered Clouds
2:35 PM	90.0 °F	97.4 °F	72.5 °F	56%	29.79 in	10.0 mi	SSW	8.1 mph	-	N/A		Scattered Clouds
2:55 PM	90.0 °F	96.4 °F	71.4 °F	54%	29.79 in	10.0 mi	WSW	6.9 mph	16.1 mph	N/A		Scattered Clouds
3:15 PM	89.6 °F	96.6 °F	72.1 °F	56%	29.79 in	10.0 mi	SW	8.1 mph	-	N/A		Mostly Cloudy
3:35 PM	90.7 °F	98.5 °F	72.5 °F	55%	29.78 in	10.0 mi	SW	9.2 mph	-	N/A		Mostly Cloudy
3:55 PM	91.4 °F	98.9 °F	72.0 °F	53%	29.77 in	10.0 mi	SW	11.5 mph	-	N/A		Scattered Clouds
4:10 PM	91.0 °F	97.6 °F	71.4 °F	52%	29.76 in	10.0 mi	SSW	10.4 mph	16.1 mph	N/A		Scattered Clouds
4:35 PM	91.0 °F	97.6 °F	71.4 °F	52%	29.75 in	10.0 mi	SW	10.4 mph	-	N/A		Clear
4:55 PM	91.2 °F	98.0 °F	71.6 °F	52%	29.75 in	10.0 mi	SSW	10.4 mph	-	N/A		Clear

Time (EDT)	Temp.	Heat Index	Dew Point	Humidity	Pressure	Visibility	Wind Dir	Wind Speed	Gust Speed	Precip	Events	Conditions
5:15 PM	90.9 °F	96.7 °F	70.7 °F	51%	29.75 in	10.0 mi	SSW	11.5 mph	17.3 mph	N/A		Scattered Clouds
5:35 PM	91.4 °F	97.8 °F	70.9 °F	51%	29.74 in	10.0 mi	SW	11.5 mph	18.4 mph	N/A		Scattered Clouds
→ 5:55 PM	90.9 °F	96.7 °F	70.7 °F	51%	29.74 in	10.0 mi	SSW	11.5 mph	17.3 mph	N/A		Clear
6:15 PM	90.9 °F	97.3 °F	71.1 °F	52%	29.73 in	10.0 mi	SW	9.2 mph	16.1 mph	N/A		Clear
6:35 PM	90.5 °F	97.0 °F	71.4 °F	53%	29.72 in	10.0 mi	SW	6.9 mph	-	N/A		Clear
6:55 PM	90.0 °F	96.9 °F	72.0 °F	55%	29.72 in	10.0 mi	SW	9.2 mph	16.1 mph	N/A		Clear
7:15 PM	89.6 °F	97.2 °F	72.5 °F	57%	29.71 in	10.0 mi	SSW	10.4 mph	-	N/A		Clear
7:35 PM	89.1 °F	97.0 °F	73.2 °F	59%	29.70 in	10.0 mi	South	8.1 mph	-	N/A		Clear
7:55 PM	88.5 °F	96.8 °F	73.4 °F	61%	29.70 in	10.0 mi	SSW	9.2 mph	-	N/A		Clear
8:15 PM	87.6 °F	95.7 °F	73.8 °F	63%	29.71 in	10.0 mi	SSW	8.1 mph	-	N/A		Clear
8:35 PM	86.2 °F	94.2 °F	74.1 °F	67%	29.70 in	10.0 mi	SSW	6.9 mph	-	N/A		Clear
8:55 PM	85.1 °F	92.9 °F	74.5 °F	70%	29.69 in	10.0 mi	SSW	8.1 mph	-	N/A		Clear
9:15 PM	85.1 °F	92.9 °F	74.3 °F	70%	29.70 in	10.0 mi	SSW	8.1 mph	-	N/A		Clear
9:35 PM	84.7 °F	92.5 °F	74.3 °F	71%	29.70 in	10.0 mi	SSW	6.9 mph	-	N/A		Clear
9:55 PM	84.4 °F	91.3 °F	73.6 °F	70%	29.70 in	10.0 mi	SSW	9.2 mph	-	N/A		Clear
10:15 PM	83.8 °F	90.1 °F	73.2 °F	70%	29.70 in	10.0 mi	SSW	10.4 mph	-	N/A		Clear
10:35 PM	84.4 °F	90.3 °F	72.3 °F	67%	29.70 in	10.0 mi	SSW	11.5 mph	17.3 mph	N/A		Clear
10:55 PM	83.8 °F	89.2 °F	72.0 °F	67%	29.69 in	10.0 mi	SSW	11.5 mph	17.3 mph	N/A		Clear
11:15 PM	83.7 °F	89.2 °F	72.1 °F	68%	29.68 in	10.0 mi	SSW	9.2 mph	-	N/A	Rain	Light Rain
11:35 PM	83.3 °F	88.7 °F	72.1 °F	69%	29.68 in	10.0 mi	SW	13.8 mph	17.3 mph	N/A	Rain	Light Rain
11:55 PM	83.3 °F	88.4 °F	72.0 °F	68%	29.67 in	10.0 mi	SW	11.5 mph	18.4 mph	N/A		Clear



IPL - Petersburg Station

6925 N State Road 57

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YEAR	UTILITY CODE	PLANT CODE	STACK ID	FLUE ID	INSERVICE DATE	INSERVICE DATE CODE	STACK FLUE STATUS	FLUE HEIGHT	AREA AT TOP	EXIT RATE 100 PCT	EXIT RATE 50 PCT	EXIT TEMP 100 PCT	EXIT TEMP 50 PCT	EXIT VELOCITY 100 PCT	EXIT VELOCITY 50 PCT	EXIT TEMP SUMMER	EXIT TEMP WINTER	EXIT TEMP SOURCE
2005	9273	994 1	1B		5/1/1967 0:00		OP	553	491	990000	690000	307	280	34	23	218	154	M
2005	9273	994 2	1S		3/1/1996 0:00		OP	612	183	810000	575000	125	124	74	52	134	119	M
2005	9273	994 2	2B		9/1/1995 0:00		OP	612	314	1450000	990000	295	289	77	53	199	159	M
2005	9273	994 2	2S		3/1/1996 0:00		OP	595	333	1425000	975000	123	120	71	49	256	242	M
2005	9273	994 3	3		11/1/1977 0:00		OP	615	380	2000000	1200000	166	160	88	53	214	150	M
2005	9273	994 4	4		4/1/1986 0:00		OP	615	380	1900000	1000000	150	142	83	44	158	154	M